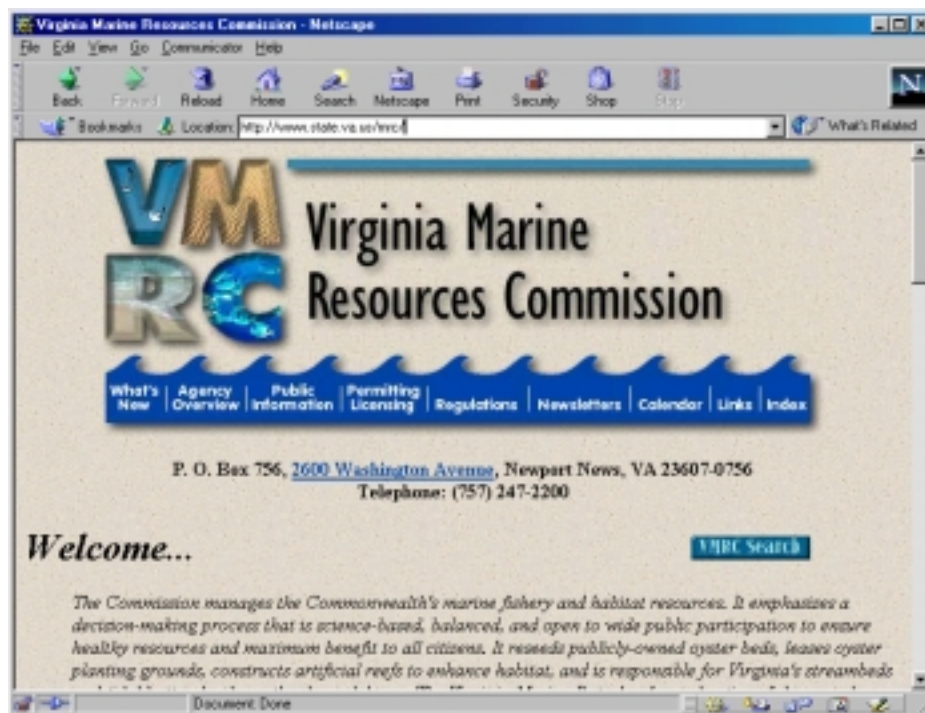




Marine Resources Commission Internet Services Plan

**Submitted to Department of Technology Planning
in Response to Executive Order 51**



June 1, 2000

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Approved by:

**William A. Pruitt
Commissioner of Marine Resources**

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I. Introduction

The Virginia Marine Resources Commission, headquartered in Newport News, Virginia, is responsible for managing, regulating, and developing Virginia's fishery resources, along with protecting and preserving Virginia's marine habitat.

In 1999, Governor Gilmore issued Executive Order 51 directing agencies to develop a plan for “delivering current and expanded services through the Internet” by June 1, 2000 and to make all forms needed by citizens available via the Internet by December 31, 2000. This document provides the Marine Resources Commission’s plan for Internet services and will also document the various forms used by the Commission and their suitability for availability via the Internet.

Agency Information Technology Overview



The Commission maintains a local area network (LAN), primarily using Netware 4.x, but also incorporating a Microsoft NT 4 Terminal Server running Citrix Metaframe 1.8, and a Sun Sparc server running Solaris 2.5. The network has approximately 100 local workstations and provides TCP/IP access to the internet and to the State mainframes through a partial T-1 frame relay connection leased through DIT. The Agency also maintains several small regional offices equipped with single PCs or small LANs; these offices have the capability to use dial-up connections to obtain email and access main office applications if necessary. The Commission has three full time IT positions.

The Commission maintains, operates and utilizes the various automated systems listed below:

Commercial Fishing License System
Habitat Management Permit Tracking System
Oyster Ground Billing and Leasing System
Fisheries Management Systems (Statistics, Fisherman Tracking, Stock Assessment)
Mapping/Geographic Information Systems
Virginia Saltwater Fishing Tournament Citation System and Gamefish Tagging Database
Law Enforcement Summons, Time/Effort, and Complaint/Incident Tracking Systems
Central State Systems (PMIS,CIPPS,CARS,VCINS,FAACS,PROBUD,Recruit,FATS)

The majority of the Agency custom applications have been developed with Microsoft Access and are designed to help individual work groups obtain access to their data easily and to automate routine tasks. A typical example is the Fisheries Tracking System in Figure 1; this application allows fisheries staff to do flexible searches for an individual fisheries licensee then provides access to the various information associated with that individual. For a more complete description of the Commission’s data applications please reference the Agency’s *Information Technology Security, Contingency Management and Disaster Recovery Plan (1999)*.

Fisherman Tracking System

Tuesday, April 11, 2000 09:49:01 AM
Sort: Last-4

Name: DUMMY O OYSTER JR CPL#: OYSTER 9999
Address: OYSTER ST. SSNH: 999 999999
City: OYSTERVILLE State: VA Zip: 99999
Address Status: DOB: 00/00/00 County: 99 Company: OYSTERS R'US
Phone Number: Wt: 300 Ht: 9 ft 09 in. Eyes: GREY Hair: GREY

User Init: Letter Code: Entry Date: By: Date Sent:
Date Logged: 03/14/1997 Description:
Problem:
Mail: 2/27/1998 Need Mail: 3/15/1998 Mail Info: FIDFD

Year: Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
2000 OFF 999
Buyer:
Helper:
General Information:

vt25W001
Record 1 of 1 Data for year 2000
Tracking (F2) License (F5) Statement (F8) County (F7) Permit (F9) Harvest (F3) Gills (F4) Lenses (F6)

Figure 1. An example of a typical data application used by Commission Staff

Plan organization and relation to other planning activities

Instructions from the Department of Technology Planning (DTP) indicate the EO 51 planning should be organized by Priority Business Activity (PBA). The Commission's PBAs are: 1) Fisheries Management, 2) Habitat Management, 3) Law Enforcement, 4) Oyster Conservation, and 5) Saltwater Tournament. Standard spreadsheets provided by DTP for EO 51 reporting have been provided in Appendix 1 and are organized by business application; the relation of business application to PBAs can be found in Appendix 2.

The State has also begun to introduce the concept of Mission Focused Information Management (MFIM) as a means of managing IT resources (*Strategic Information Resource Management Plan* 1997). Initial implementation of these concepts were to be provided via a Capital Improvement Plan – Information Resources (CIP-IR). Since our IT program is small and the use of internet services and features will become integral to our overall IT program, this document provides some of our budget proposals and may be used to meet the planning requirements of the CIP-IR. As with the Agency Year 2000 and our Strategic Planning processes, this planning effort has involved all levels of operational and supervisory staff and will seek to tie our IT and internet services efforts to the mission of the Agency in a practical and economical manner that is convenient to our clients.

The Agency 2000-2002 Strategic Plan was developed in the Spring of 1999 as part of the performance budgeting process. The plan identified the following goals, objectives, and strategies for our IT program:

Goal: Update and enhance Agency systems to enable interactive internet services for citizens and other organizations working with the Commission

Objectives:

- Update database systems and associated hardware and software to accommodate integration of internet services
- Develop staff expertise to add internet service features to Agency web site
- Develop records image archival and management systems to facilitate electronic exchange of Agency documents

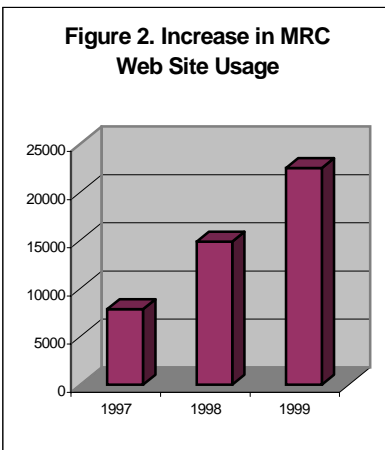
Strategies:

- Begin pilot projects to explore feasibility of accessing elements of Agency data systems through the internet
- Orient new application development projects to the use of internet technology
- Work with cooperating agencies and contractors to help build interactive features into Agency web site
- Explore feasibility of migrating all agency systems to more robust client server database systems to accommodate newer internet technology
- Begin pilot project to explore feasibility of developing a document storage and archival system to facilitate electronic exchange of Agency documents internally and externally and to reduce space required for original document storage.

The Commission has spent much of the last ten years updating and standardizing its data systems. Because of resource limitations this work has been done in stages. Most systems only have an expected life of seven to ten years. Over the next five years, most systems will need to be considered for redevelopment to accommodate newer technology and to meet new requirements. This situation coincides with an increasing interest in providing interactive services on the internet, such as data requests, permit applications, license sales and other electronic commerce, interactive data reporting, and resource maps.

To face these upcoming challenges, the Commission will have to make a focused effort to bring staff up to date on evolving internet technologies and the underlying system infrastructure necessary to support internet services in a robust and secure manner. The strategies outlined above, and in the rest of this document, will be the Agency's approach to shifting its information technology program in this direction.

II. Current Web Site Status



The Agency web site (www.state.va.us/mrc) was started in 1996. Figure 2 tracks annual usage statistics; estimates of usage based on the number of accesses to the home page and more detailed statistics on site usage from DIT, indicate that the site averages approximately 125 users per day. It provides over 1,000 pages of information related to the Commission ranging from regulations to recipes. Because of our limited staff, we have concentrated on providing good content with little fanfare. Our most popular features are regulation listings, the Saltwater Review, a weekly recreational fishing report, and the 'What's New' page that provides links to recent regulatory changes, public notices of proposed changes, and other items of interest to the Commission's clients. We have been experimenting with simple

online forms as a means to allow web site users to send data to the Commission. Figure 3 shows an example of our online form for reporting recreational trophy striped bass harvests. Similar reports for online reporting of fish tag recoveries and releases are also available. The Commission also provides a variety of forms in HTML, WordPerfect, Word, and PDF format; see Appendix 2 and the discussion in the next section for a listing of forms, including those now available and those planned to be provided by the end of the year.

Virginia Marine Resources Commission - Netscape

File Edit View Go Communicator Help

Back Forward Reload Home Search Netscape Print Security Shop Stop

Bookmarks Location: <http://www.state.va.us/mrc/tnr00b1c.htm> What's Related

Virginia Marine Resources Commission

What's New | Agency Overview | Public Information | Permitting Licensing | Regulations | Newsletters | Calendar | Links | Index

WARNING: This e-mail form does not work with all browser e-mail systems (such as AOL). We will reply to any e-mail reports received. Please keep a copy of your report information. [Trophy Season Information](#)

REPORT FORM: 2000 RECREATIONAL TROPHY STRIPED BASS SEASON
Use a separate form for each day!

Your name (first and last):

Date (mm/dd/yy):

Water body where fish were caught (be as specific as possible):

Number of rockfish caught:




Figure 3. An example of an online form available on the Agency web site

The Agency has executed an information network services agreement with VIPNET and used their graphics services in 1998 to add the navigational graphic found at the top of all of our web pages.

As a related service, the webmaster has begun providing web content directly to a subscription list via email. The VMRC E-News is sent out several times a month to over 400 subscribers and contains recent news, public notices, regulatory changes, and Commission tentative agendas. As this list grows, we will have another avenue to actively contact Commission clients about issues of importance to them.

III. Inventory of Agency Forms



In preparation for the EO 51 mandate to make all forms needed by citizens available via the Internet by December 31, 2000, Agency staff has updated a 1987 inventory of Agency forms (Appendix 2). This forms inventory includes all forms used by the Agency that involve citizens. The listing in Appendix 2 provides information on who uses the form, why it is used, frequency of use and the desirability of providing the form through the Agency web site.

Of the 61 forms listed in Appendix 2, ten are already provided as a blank form or as an online form on the Agency web site, 23 are planned to be added over the next six months, 15 will not be made available until adequate staffing or funding is obtained, and 13 will not be made available. Forms not being made available are either intended to be strictly used by Commission personnel (e.g. the Virginia Uniform Summons) or are forms that require manual checking or verification of various information prior to submission of the form (e.g. Form MRC 50-559, permit to move shellfish from condemned areas, takes under a minute to complete, but requires a marine patrol officer be present to verify and seal the shellfish shipment in accordance with the National Shellfish Sanitation Program). Most of the 15 forms that can not be made available until additional staffing or funding are provided, relate to commercial fisheries licensing and harvest reporting; in these cases, procedures to minimize risks to the proper management of the programs must be worked out before proceeding (since these are somewhat complex processes funding for additional staff or contractual services are necessary).

Presently we often offer forms in Wordperfect, Word, and Adobe PDF formats, and sometimes in HTML format. In the future we will standardize on the use of Word and PDF formats to reduce administrative time necessary to keep forms updated. When using the PDF format, we will experiment with making our forms interactive using the built-in field definition and email submission features in Adobe Acrobat 4.0.

We also plan to provide any guidance documents the Commission produces in the PDF format. This will include the Subaqueous Guidelines Manual, Wetlands Guidelines Manual, Dune Guidelines, BMP Manual, Aquaculture Booklet, Marina Siting Criteria, and the Mitigation and Compensation Guidelines produced by the Habitat Management Division.

IV. Potential Web Services

Fisheries Management:



Our Fisheries Management Division services a variety of clients with varying experience and access to personal computers. Earlier this year the Commission surveyed over 3,000 commercial fisherman to see their attitudes towards use of the internet. We received over 1,500 responses to the survey indicating that approximately 25% have access to a computer and some interest in Commission services like licensing and harvest reporting via the Internet. The Commission also works with a marine recreational fishing

community that takes in excess of 500,000 trips per year, and numbers in the hundreds of thousands of individuals. We have assumed that this segment of our fisheries clients are like the general population and probably at least 50% have access to a personal computer. In most cases our initial strategies for internet services in fisheries will likely target the recreational fishing community where PC access is higher, reporting requirements are simpler and better suited for internet applications (typically there are tens of thousands of recreational anglers that may have to sporadically report throughout the year). By developing recreational data reporting online we should be able to strengthen our information from this sector of the fisheries without hampering our already strong reporting program for commercial fisheries.

Online fisheries data requests: Fisheries staff receives hundreds of requests per year for information related to commercial and recreational fisheries. Staff has provided a downloadable generic data request form to help streamline data requests; static summaries of harvest information are also provided on the Agency web site. Much of Virginia's fisheries harvest data is also shared with the National Marine Fisheries Service (NMFS) through a cooperative agreement and is made available at their interactive web site that allows a user to perform dynamic queries of commercial and recreational fishery data (<http://www.st.nmfs.gov/st1/commercial/>). An enhanced version of the reporting features at the NMFS site, allowing retrieval of more detailed data while protecting confidentiality, is being developed by the Atlantic Coast Cooperative Statistics Program and should become available over the next several years.

Online fisheries permit applications and specialized fisheries functions: In many of the regulated fisheries, the Commission requires special no cost permits as a means of implementing special management measures. Presently, these permits are handled on a walk-in or mail-in basis, and in some cases require that the applicant's license, harvest reporting or other eligibility criteria be checked by Commission staff. Initially, staff will provide permit application forms online for download, but as we develop dynamic web applications that can verify eligibility criteria at the time of transaction, we will begin adding online fisheries permit applications to our web site.

In many cases fisheries requiring permits have developed special administrative processes to assist

in limited entry or quota management (two of the most effective fishery management tools are quota management—allowing a preset harvest that requires that a fishery be closed when the quota is reached, and limited entry—only allowing a preset number of fishermen to participate in a fishery). The Commission’s use of these tools and its desire to maintain flexibility for fishermen has created processes where fishermen can request exceptions to eligibility criteria, as well as, transfers of licenses, permits or quota allocations to other fishermen. All of these processes are tracked and information concerning them are maintained in Agency databases. Initially, staff plans to provide the downloadable forms that are part of these processes on the Agency website, but ultimately some of the transactions involved in these processes may be moved to online formats.

Online Fisheries Reporting: One of the most common tools employed by fisheries managers is fisherman reporting. By requiring fishermen to report on amount of harvest and fishing effort, managers can gain a better understanding of the impact of fishing on the health of a fishery. The Commission fisheries staff oversee a variety of reporting requirements, however the bulk of the reporting is done through the commercial fisheries mandatory reporting system. In this mail-in or walk-in system fishermen report daily fishery data on a monthly basis. More commercial fishermen and seafood buyers have started using computers and there have been requests to allow electronic submission of mandatory reports. Our recent survey indicated that about a third of commercial fishermen may have an interest in submitting their data in this manner. This is one of the highest volume data systems handled by Commission staff (several hundred thousand records per year). While it may be desirable to allow fisherman an alternative report submission process, it would create a new data pathway which will require additional staff time to develop and support.

In addition to commercial reporting, there are several reporting requirements for recreational fishermen that may be well suited for online reporting. In general, the recreational fishing population is tracked less closely and has less rigorous reporting requirements that could be enhanced by providing them with a simple online reporting system. For the last two years we have used a java-based online form for reporting recreationally caught trophy striped bass and envision using similar online forms for other recreational fishing reporting requirements.

Online Licensing: Note that licenses differ from the fisheries permits already discussed. Fisheries permits do not cost anything, are low volume (hundreds per year), and are usually issued by fisheries staff. Licenses have varying fees usually established by statute, have a higher volume (around 15,000 per year), and have stringent accounting requirements to accommodate the handling of the sales fees.

Sales of the Commission’s Saltwater Recreational License (SWRL) are administered by the Department of Game and Inland Fisheries (DGIF). The DGIF manages a network of over 600 sales agents throughout Virginia for freshwater fishing, hunting and saltwater recreational licenses. It is anticipated that the DGIF will be offering its licenses and the Commission’s SWRL via the internet within the next year.

Commercial fisheries licenses are administered by the Commission’s Administration and Finance Division. There are approximately 100 separate commercial licenses. In some cases, there are complex eligibility requirements associated with commercial license applications. Currently

commercial licenses are sold by MPOs and a network of over 40 sales agents throughout the tidewater area. This sales network is already thought to be fairly convenient to our licensees, however it is apparent that online commercial licenses could be a convenience to a small portion of our licensees. The Administration and Finance Division is interested in developing a pilot program using the internet for commercial licenses sold to recreational users; this is a subset of licensees that use limited commercial gear for non-commercial purposes. These licenses do not have eligibility requirements and have relatively low annual volume, which would make them good candidates for experimenting with online transactions. As the Agency's experience with online transactions increases, other commercial license sales could be considered for online sale. Use of a license sale feature over the internet would have to be an alternate to the current sales agents, and as such could increase the work load of the internal licensing staff that is already fully committed; development of internet features would have to be tightly integrated with the existing data application and would have to be done in a manner which could reduce, not increase, staff processing time. The Commission also needs to revamp its licensing system during the next several years, so a pilot internet licensing feature could provide useful information on how the Commission should handle the automation of future license sales.

Habitat Management:



The primary clients of the Habitat Management Division are water-dependent businesses, waterfront landowners, their agents, and other government agencies involved in the permitting of water related projects. Our assumption is that many of these clients will have ready access to PCs, and the use of the internet for permit processing would be a convenience to permit applicants.

Electronic submission and distribution of JPA: Much of the Division's activity involves the processing of the Joint Permit Application (JPA); in the JPA process the Commission serves as a clearing house for the receipt of permit applications in cooperation with the Corps of Engineers, the Department of Environmental Quality (DEQ), and local wetlands boards. The Corps of Engineers currently provides downloadable versions of the JPA that are linked to from the MRC web site. Completed permit application documents typically are 10-15 pages long, usually include drawings, and require original signatures. Commission staff anticipates that electronic submission of the JPA could be viable once the issue of digital signatures and handling of electronic documents is incorporated into their present system. When the JPA is received from the applicant, electronic distribution to interested parties and cooperating agencies is also desirable. This would require reproducing all JPAs, both mail-in hard copies and electronically submitted forms, in a common electronic format, such as PDF, and creating an archival/retrieval system to manage the computer documents. In the near term, the JPA forms are now available in PDF format and Commission staff will be developing a means to post the legal notices related to Division's permitting activities on the MRC web site. The public notices for habitat permitting must be posted in a local paper distributed in the area of a proposed project, but web posting will offer an additional convenient, single location to find information about proposed projects. As mentioned in the previous section, Habitat staff also

plan to post all guidance documents related to permitting under the jurisdiction of the Commission.

Online oyster ground features: The Habitat Management Division's Engineering and Surveying Department is responsible for mapping public and private oyster grounds in the State. The Department responds to thousands of requests per year for oyster ground mapping information and is planning to provide an interactive means of displaying map data via the web. The Department has used CADD and GIS software for the last ten years, and is completing a transition to newer data formats using AutoCad and Arcview software that should enable them to more easily provide access to mapping data via the internet. As mapping features are developed, staff would like to introduce means of displaying other Commission related information such as Habitat permit locations and status, oyster grounds lease status data, and fisheries harvest information.

In addition to surveying responsibilities, the Engineering Department also manages the Oyster Grounds Leasing System (OGLS) which services over 8,500 leases. Currently, the Department plans to post all forms related to the leasing process on the Agency web site. At the point where the Agency implementation of online financial transactions are more commonplace, the Engineering and Surveying Department could consider moving some of the higher volume processes like annual lease renewal and payment to the internet. Use of a lease renewal feature over the internet would have to be an alternate to the standard mail-in and walk-in process, and as such could increase the work load of a department where staff is already fully committed. Development of internet OGLS features would have to be tightly integrated with the existing data application and would have to be done in a manner which could reduce, not increase, staff processing time.

Law Enforcement:



The Law Enforcement Division is tasked with enforcing marine resources laws, and in addition, their Marine Patrol Officers (MPOs) issue several types of licenses and permits which require a physical inspection. These processes are purposely more controlled and are not well suited for implementation on the internet. As a consequence most of the forms the Law Enforcement Division uses will not be made available on the Agency web site.

Agency MPOs do serve as one of the main outlets for public information and can make use of the Agency's web site for current regulatory information and as a point of referral for citizens interested in more detailed data. Currently this type of usage is somewhat restricted in that most officers only have access to the internet at the Agency's few regional offices which standardly have a single PC. More modern, mobile systems like laptops, personal digital assistants (PDAs), or 'smart' phones would be desirable but would be expensive to implement. If mobile access could be funded, officers would have good access to online data resources concerning licensing, permitting, boat registration and criminal activity. There are also several internal data systems that could be more efficiently developed using mobile access, such as officer inspection activity, summons, complaint/incident tracking, and leave and travel reports. Development of mobile data systems will likely be coordinated with the revamping of the State Police communication system, which has initial implementation planned for 2003.

Miscellaneous Services:

Much of the Commission staff's daily activity is directed at supporting the monthly Commission meeting. The Commission has a eight member citizen board, chaired by the Commissioner, that meets monthly to make habitat case decisions, promulgate fisheries regulations, review fisheries programs, hear repeat offender and failure to report cases, and receive public comment on marine resource issues. Currently, these meetings are tape recorded and summary minutes are written to document the proceedings; average meeting length is about 7 hours. The Commission would be interested in transitioning to audio or video recording formats that could be indexed and posted on a webserver to provide better public access to the public record of these meetings. Preliminary investigations indicate that the cost of hosting audio and video of this sort would be cost prohibitive for our agency. However, if an organization like DIT or VIPNet could offer audio/video web hosting services – recording could be done cost-effectively by the agency, making this sort of service more feasible.

V. Implementation



This plan has attempted to take a broadbrush approach to looking at the Agency's potential internet services. This has not been a new topic at the Agency and over the last several years of running our web site we have discussed several types of new features and means of implementation. We have considered several strategies for spurring on web development:

1) Continue to develop inhouse web development skills: the current web site is almost entirely produced using Word 97 html conversion complemented by html editing in a text editor. In the future, we will begin to use more sophisticated tools including Word 2000 and Frontpage 2000 or other web development tools. We also will be considering the use of a recently installed Citrix Metaframe server to deliver interactive features to the website using their Nfuse embedded application technology. Citrix software allows standard and customized windows/DOS desktop software applications to be displayed in a web browser. As more complex web services are developed, it is likely that the Agency will require a standalone web server with a dedicated data circuit external to our LAN.

2) Use VIPNet services: we have established a cooperative agreement with VIPNet and hope to use their services to establish some of our desired interactive features. The Habitat Management online JPA project and the fisheries licensing project for recreational use of commercial gears would be good candidates for pilot projects with VIPnet. Although we could likely use VIPNet help on some of the more complicated fisheries processes (permitting, transfers, exceptions), the complexity and low volume of these functions may preclude their assistance on these.

3) Use external contractual services: this option tends to be the least favored of our strategies because we have no dedicated budget for web services. However contractual web services are becoming more commonplace and affordable. Several potential contractors include:

Area universities (VIMS, ODU, CNU, etc.): area colleges typically have a good pool of student talent to pull from for internships or other cooperative projects. Funding is necessary to support the startup of this type of program.

Local sponsoring private companies: some resource agencies in other states have partnered with private ISP or web development companies; this has a potential advantage of providing the private company a higher profile in the community while providing the public agency with more affordable web development services.

Private consultants: this is the most expensive contractual option, but does offer the opportunity for rapid web development. Use of private consultants could be made easier if web design and development positions were added to the State “body shop” contract.

The Agency will likely explore all of these avenues to try an increase its web services. Probably the greatest limiting factors are staff time and funding. Additional infrastructure changes are also desirable. Some proposals to remedy this are as follow:

Staff: There are several areas where our staff is already fully committed. If some of the potential web services described in Section IV are to be developed in the next four years, additional staff will be necessary (alternatively funding for contractual services could be provided). Areas in most need are 1) fisheries management special processes, 2) oyster ground leasing program, and 3) law enforcement mobile computing initiatives, and 4) IT web services program. In all of these cases technical personnel with in depth knowledge of databases, networking and web design would be necessary. While such personnel will be helpful in development of new services, their real need is in systems support and the analysis of the information used to manage these programs.

Estimated cost: 4 FTE Grade 14, \$200,000 per year.

Infrastructure: The Commission has a number of infrastructure changes that would facilitate development of web services and keep existing IT resources up to date.

1) complete upgrade of LAN wiring: move remaining CAT 3 wiring to CAT 5/6, add additional LAN switching and new server backbone to optimize Agency network.

Estimated cost: \$20,000

2) increase connection speed of existing frame relay data circuit from partial T-1 to full T-1. Install second data connection to support a web server external to Agency LAN.

Estimated cost: \$16,000 per year

3) Upgrade/replace existing Novell network servers to support increasing network traffic and storage requirements, and purchase additional server for web services.

Estimated cost: \$ 25,000

4) High volume scanners (4) and software to capture document images for JPA electronic distribution and other system processes.

Estimated cost \$ 50,000 with annual maintenance fees.

5) Purchase higher end client server SQL database to support web services.

Estimated cost: \$ 10,000 - \$50,000 with annual maintenance fees.

6) Procure mobile computing devices for LE personnel with wireless data communication capabilities.

Estimated cost: Equipment - \$ 50,000 to \$100,000; annual telecommunication services (cellular/digital wireless internet access, paging, email) - \$20,000 to \$60,000 per year.

7) Audio/video recording equipment to support web posting of monthly Commission meetings.

Estimated cost: \$ 15,000

Other implementation issues:

Credit card sales and convenience fees: The Commission currently does not accept payments by credit card. If future online features allow for online credit card transactions, the Commission would endorse the use of convenience fees to replace the revenue lost to credit card commissions. We would also support the use of convenience fees to pay for development of online features.

Digital signatures: Many forms used by the Commission administratively require an original signature and in some cases require notarization. The Commission could temporarily get around this requirement on online forms by having applicants submit a followup certification/signature document by conventional means; however future processes would be more efficient if the State develops standards for introducing a means of providing digital signatures online.

Timetable: Creating a timetable for completion of new web features is dependent on funding. However, projects in order of interest are:

- 1) Habitat Management JPA electronic submission and distribution
- 2) Online commercial fisheries licensing pilot
- 3) Online mapping data

- 4) Online fisheries harvest and fishing effort reporting
- 5) Web posting of Commission meeting audio/video record
- 6) Law Enforcement mobile computing initiative
- 7) Online oyster ground leasing renewal feature
- 8) Online fisheries permitting and related procedures

The DTP standard spreadsheets in Appendix 1 have been completed using these priorities; however as discussed in the following section, without timely funding, completion of these projects can not be forecasted.

Risks: Developing client services via the internet is seen as a means of providing convenient services to our customers. Development of online services should be done in a manner which does not create an unreliable service and will not interfere with the present delivery of services. Many of our service delivery processes already have been developed to make interaction with the Commission as convenient as possible, and in some cases, have specialized procedures designed to protect public health and natural resources. Probably the highest risk online developments will involve commercial fisheries licensing and harvest reporting, and oyster ground oyster leasing renewals; these are all relatively high volume activities in programs where staff are already over-committed. As new online systems are developed we must keep in mind that our program staff are dedicated to current delivery systems, and that the MRC IT staff is small and not staffed to support high volume, day-to-day operational services that are fully dependent on technology. This again makes a case for contracting web services (design and support), using VIPnet resources, or adding additional staff to the Commission's programs.

VI. Conclusions

The Commission has a good web presence. Although we do not plan to provide all forms on our web site by December 31, 2000, we feel that we have met the intent of EO 51. In all cases where we do not plan to provide forms, the form either has some regulatory purpose that is not improved by providing the form online, or is involved in a higher volume activity where the risks of providing an online form by December 31, 2000 are not outweighed by the benefits.

We would like to embrace the Governor's vision, and have a great web site offering a diversity of convenient services to the citizens and organizations that work with our Commission. We see a dynamic web site as an opportunity to enhance our outreach efforts to educate our clients on how the Commission's programs work and why they are necessary. The introduction of web services also holds promise as a means of making Commission business functions more convenient to citizens.

We have insufficient resources to meet our plans for web features. We have three dedicated IT positions and an annual IT equipment budget of \$35,000. We have only been able to make progress in our IT program over the last seven years by augmenting our dedicated funding with federal grant funds and redirected program funds. Webmaster activities are performed as a part time function of one of the three IT positions. Without a significant infusion of funds our situation will not change.

In Section V, we have outlined over \$500,000 in funding that would allow us to fully meet our objectives over the next four years. We would like to submit an addendum request this summer for FY 2001/2002 to begin the process of obtaining state funds to support our web services development. Given that this is the second year of a biennial budget, we are not sure if addendums of this sort will be allowed; any action taken by the Secretary of Technology and the Department of Technology Planning to encourage the Department of Planning and Budget to consider web services addendum requests will be critical to timely funding (our next opportunity would be the 2002/2004 biennial budget which could not hypothetically provide funds until July 2002; which would mean the earliest implementation of some of these project ideas would be early 2003).

In lieu of additional state funding, we will continue to pursue initiatives to provide web services to our clients, but we will have no ability commit to a schedule of completion. We will also continue to be hesitant to add any direct, high volume web services to avoid potential system failures that could introduce client inconvenience.

VII. References

Information Technology Security, Contingency Management and Disaster Recovery Plan (1999). Marine Resources Commission. 32 pages.

Strategic Plan for Performance Budgeting for the 2000-2002 Biennium (1999). Marine Resources Commission. 125 pages.

Mission Focused Information Management – Strategic Information Resources Management Plan (1997). Council on Information Management. 43 pages.

VIII. Appendix 1

**Commonwealth of Virginia
Web Enablement Plan
June 2000**

Agency: Marine Resources Commission

Code: 402

[illegible]

Note - Numbers indicated above reflect the number of forms at each particular tier level during each fiscal period, see text for more explanation. **Objectives beyond FY 2001 can not be met without additional staff or funding.**

IX. Appendix 2

Marine Resources Commission Forms Inventory by Priority Business Activity (PBA): Fisheries Management(1); Habitat Management (2); Law Enforcement (3); Oyster Conservation (4); Saltwater Tournament (5). Form subcategories are the business applications used in Appendix 1.

PBA No.	Form Name	Form Number	No. of Pages	Authority	Who is required to fill out	Frequency of Completion	Internet Access
Fisheries Licensing							
1	Commercial license	MRC 50-550-R	1 pg	28.2-300	Licensee and MPO or Agent	8,000 forms per year	No; investigate after pilot online licensing project
1	Application for Delayed Entry Commercial Registration License		1 pg	4VAC20-610-10	Commercial fisherman applying for two year delayed entry	50 per year	No
1	Non-resident harvesters license application	MRC 10-119	1 pg	28.2-227	Non-resident commercial fishermen	200 per year	No; investigate after pilot online licensing project
1	Application to transfer saltwater recreational boat license		1 pg	28.2-302.7:1	Holders of SW recreational boat licenses that wish to transfer license to another boat		Yes; on website now
1	Application for disabled resident lifetime hunting and fishing license		1 pg	28.2-302.10	Disabled residents wanting to apply for special lifetime hunting and fishing license		Yes; on website now
1	Non-commercial use of commercial gear license form		1 pg		Recreational users of limited amounts of commercial gear	1,000	No; proposed as pilot license for online sale testing
1	Charter/rental boat or commercial pier license form		1 pg		Charter/rental boat or commercial pier licensees	300-500	No. Future online licensing possible.
Fisheries Harvest Reporting							
1	Public oyster harvest form	MRC 53	1 pg	28.2-538	Public ground buyers/harvesters	5000 per year	No; 3 part form associated with tax payments
1	Private oyster harvest, import and repurchase form	MRC 55	1 pg	28.2-538	Buyers of unshucked oysters that are repurchased or imported	5000 per year	No; 3 part form associated with tax payments
1	Oyster tax monthly report	MRC 40-457R	1 pg	28.2-544	All purchasers and importers of oysters	500 per year	No; 3 part form associated with tax payments
1	Striped bass buyer report		1 pg	4VAC20-252-10	Buyers reporting purchases of striped bass from harvesters	1000 per year	Yes
1	Striped bass charter boat harvest report		1 pg	4VAC20-252-10	Charter boat captains reporting harvest of striped bass	100 per year	Yes

1	Conch harvest report		2 pgs	4VAC20-890-10	Conch permittees reporting their harvest		No
1	Harvest report form for recreational users of non-commercial gear		1 pg	4VAC20-670-10	recreational licensees of non-commercial gear reporting harvest		Yes; on website now
1	Commercial harvest mandatory reporting form		1 pg	4VAC20-610-10	All commercial fisherman harvesting in Virginia waters	50,000 – 100,000	No; 3 part form, investigate when funding is available
1	Commercial harvest mandatory reporting monthly folder		3 pgs	4VAC20-610-10	All commercial fisherman harvesting in Virginia waters	10,000 – 20,000	No; monthly submission folder, investigate when funding is available
1	Striped bass recreational trophy harvest report		1 pg	4VAC20-252-10	Individuals recreationally harvesting trophy sized striped bass	50 per year	Yes; on website now
Fisheries Data Requests							
1	Fisheries data request				Individuals interested in fisheries harvest data	Several hundred per year	Yes; on website now.
Fisheries Permitting and Related Procedures							
1	Commercial Registration Exception		1 pg	4VAC20-610-10	Commercial fisherman applying for exception to 2 year delayed entry	50 per year	No
1	Striped bass tag transfer		1 pg	4VAC20-252-10	Fisherman transferring striped bass tags to another licensed fisherman	200 per year	Yes
1	Striped bass aquaculture facility permit application		2 pgs	4VAC20-252-10	Citizens wanting to rear striped bass in a private facility	25 per year	Yes
1	Striped bass buyer permit application		1 pg	4VAC20-252-10	Seafood buyers wanting to purchase striped bass from harvesters	100 per year	Yes
1	Striped bass charter boat permit		1 pg	4VAC20-252-10	Charter boat captains wanting to harvest striped bass	100 per year	Yes
1	Crab dredge transfer form – individual or boat/dredge			4VAC20-750-10	Individuals wanting to transfer their crab dredge permit	25 per year	Yes
1	Crab dredge eligibility form		1 pg		Application for crab dredge eligibility		Yes
1	Crab pot transfer form		1 pg	4VAC20-1040-10	Commercial crabbers wanting to transfer their pot license		No
1	Black drum exception request		2 pg	4VAC20-320-10	Commercial fisherman wanting to get an exception to limited entry for black drum fishery		Yes
1	Black drum transfer form		1 pg	4VAC20-320-10	Commercial fisherman wanting to transfer their black drum permit		Yes
1	Black drum buyer permit		1 pg	4VAC20-320-10	Seafood buyers wanting to buy black drum from harvesters		Yes
1	Summer flounder transfer form		1 pg	4VAC20-620-10	Commercial fishermen wanting to transfer their summer flounder permit		Yes
1	Summer flounder endorsement form		1 pg	4VAC20-620-10			Yes
1	Summer flounder MTRLS form – federal form for release of harvest records		1 pg		Commercial fishermen wanting to qualify for flounder permit		Yes
1	Conch permit transfer form		1 pg	4VAC20-890-10	Conch fishermen wanting to transfer their permits		No

1	Commercial Hook & Line (H&L) permit transfer		1 pg	4VAC20-995-10	Commercial H&L permittees wanting to transfer their permits		No
Fisheries Grant Management							
1	Application for grant projects funded by marine improvement funds				Applicants for grants funded by the recreational and commercial marine improvement funds	20 per year	Yes
Habitat Permitting							
2	Joint permit application	MRC 30-300	6	28.2-1205 28.2-1306	Applicants for use of subaqueous land or tidal wetlands	2,000 per year	Yes; on website now, investigate online application submission
2	Coastal primary sand dune permit application		2	28.2-1406	Applicants for use of coastal primary sand dunes	7-10 per year	Yes
2	Abbreviated JPA for non-commercial riparian shellfish aquaculture	VGP #3		28.2-1307	Non-commercial aquaculturists		Yes
Oyster Ground Leasing							
2	Application for oyster planting ground	MRC 20-200RR	1	28.2-605	Applicants for oyster planting ground		Yes; on website now
2	Application for transfer of oyster planting ground	MRC 20-204RRR	1	28.2-625	Leaseholders wanting to transfer grounds		Yes; on website now
2	Application for reassignment of oyster planting ground		1	28.2-611 28.2-612	Leaseholders desiring to renew their leases		No; investigate when staffing/funding available
2	Request for restaking		1		Leaseholders requesting resurvey of lease		Yes
2	Application withdrawal notice		1		Applicants wishing to withdraw applications		Yes
2	Affidavit for corporation		1	28.2-604	Virginia oyster businesses making application for oyster ground		Yes
2	Affidavit for transfer of riparian oyster ground		1		Owners of highland property with riparian oyster ground		Yes
2	Residency affidavit		1	28.2-635	Applicants for oyster ground whose residency is questionable		Yes
2	Notice of lease termination		1		Leaseholders requesting termination of lease		Yes
2	Release pursuant to 28.2-603		1	28.2-603	New leaseholders in Lynnhaven River		Yes
Law Enforcement							
3	Cash bond		1		MPO		No
3	Permit to buy/carry seed oysters	MRC 50-534	1	28.2-535	MPO	Each cargo	No
3	Official receipt for all miscellaneous collections	MRC 54	1		MRC employees receiving payments		No
3	Certificate of inspection and origin of seafood	MRC 36	1		MPO		No
3	Application and permit for dredging private oyster grounds	MRC 50-533-R	1	28.2-515	MPO	1 permit for each boat used	No
3	Application and permit for dredging public oyster grounds	MRC 10-149	1		MPO	1 permit for each boat used	No

3	Permit to move shellfish from condemned areas	MRC 50-559	1	28.2-815	MPO	Annual permit for each harvester and planter and daily transportation permit	No
3	Virgina uniform summons		1	28.2-901	MPO	2,000 per year	No
3	Application for fixed fishing device		1	28.2-300	Applicant for fixed fishing device	Several hundred per year	No; 3 part form, investigate after pilot online licensing project
3	Shellfish transplanting report	MRC 40-450	1	28.2-813	Planters of condemned shellfish		No
3	Record of areas closed for shellfish cleansing	MRC 40-452	1		Planters of condemned shellfish		No
Saltwater Tournament							
5	Application for SW Tournament citation for trophy sized fish		1 pg	28.2-206	Recreational fishermen applying for saltwater citations		No; requires weighmaster verification of citation
5	Cooperative fish tagging program release / recapture report		1 pg		Cooperating recreational marine fishermen releasing or recapturing tagged fish		Yes; on website now

